

Remarks

A. Introduction.

This paper is submitted in response to the Office Action mailed 08/05/2004. Reconsideration of the application is requested.

The Examiner rejected claims 1-2, 4-9, 11-13, 21, 23-28 and 30 as anticipated by Souissi as further discussed below. The Examiner also rejected claims 10, 14-20 and 29 as unpatentable over Souissi in view of Janky under Section 103(a) of the patent law. Finally, claims 3, 15, 22 were rejected as being unpatentable over Souissi as applied to claims 1-2, 5-13, 21, 23-30 and further in view of Mizell. Applicant respectfully traverses the stated grounds for rejection and requests reconsideration in view of the foregoing amendments and the present remarks.

In the foregoing amendment, claims 2-4, 14-26 and 28 are canceled. Claims 1, 9, 11, 12, 27, 29 and 30 are currently amended. New claims 31-51 are added. The title is amended as requested by the Examiner. An Information Disclosure Statement is submitted herewith.

B. Souissi does not anticipate the claimed invention.

1. *The Souissi RF Modem.*

Souissi discloses a software-configurable RF modem for wireless data communications. The modem must be connected to a host computer which downloads software to configure the modem to implement various data communications protocols ("stacks") as needed. See Abstract, paragraph 10, and Figures 2A and 4. Souissi is directed to wireless data communications only; not voice. It does not disclose use in connection with a wireless telecommunications handset ("cell phone").

Applicant's claim 1, in pertinent part, calls for:

"providing a mobile unit comprising an accessory device coupled to a wireless telephone handset..."

Second, again, Souissi is a data modem. Applicant's amended claim 1, to the contrary, further calls for a:

"wireless telephone handset and operable to communicate in a plurality of alternative modes of digital wireless communication, including at least one packet data mode and a voice mode for establishing a call over a voice channel."

Souissi says nothing about voice communications. And finally, claim 1 recites the important step of:

“if the preferred mode is the voice mode, transmitting data via the preferred voice mode without significantly interrupting human speech communications over the same voice channel call.”

This limitation is neither disclosed nor suggested in Souissi. It is well settled that under 35 U.S.C. § 102:

“[An invention is anticipated if ...] all the claim limitations [are] shown in a single art prior art reference. Every element of the claimed invention must be literally present, arranged as in the claim. The identical invention must be shown in as complete detail as is contained in the patent claim.”

Richardson v. Suzuki Motor Co., Ltd., 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989). Souissi is not directed at all to “content” or payload in the data. Rather, Souissi teaches software configuration at the data link and physical layers, including frequency band selection and air interface:

“[0046] At step 1105, the user requests a modem reconfiguration. At step 1110, the modem and host computer (“modem/host”) system prompts the user with the **available wireless air interfaces**. The user selects an air interface at step 1120. The modem/host system then prompts the user, at step 1120, with the **available frequency bands**. The user selects a frequency band at step 1125. The host computer CPU downloads software to send to the modem CPU to **configure the RF front end, the baseband processor, and the modem CPU in accordance with the user's request**, at step 1155, 1160 and 1165....” [emphasis added].

The present invention of claim 1 does not attempt to change or reconfigure the cell phone at the data link or phy layers. An important aspect of the present invention pertains to selecting among available *protocols* including voice mode for data communication. For at least these reasons, Souissi does not anticipate claim 1.

2. Preston, et al.

The Examiner cited but did not apply Preston et al., U.S. Pat. No. 6,681,121 (owned by the assignee of the present invention). Preston discloses transmission of data, in particular GPS data, using a cell phone. There, the voice channel is disconnected during data transmission, however, so human speech communication is off. According to Preston, et al:

“FIG. 14 is a diagram of the IBS modem 28 located in a battery pack connected to the cellular telephone 14. ... A switch 204 couples either voice signals from the microphone 17 or digital data tones from the IBS modem 28 to the voice channel 202....

The switch 204 is controlled either through a menu on a screen (not shown) in the cell phone 14 or by a button 206 that extends out of the back end of the battery pack 208. ... Pressing the button 206 automatically enables the GPS receiver 210 to collect GPS data from GPS satellite 212. At the same time, the switch 204 connects IBS modem 28 on the voice channel 202 of the cell phone 14. The IBS modem 28 is then activated. As soon as the GPS data is collected in the IBS modem 28, the data is formatted, encoded and output by IBS modem 28 to the voice channel 202 of the cell phone 14.” Preston, column 9, lines 10-35.

Thus, when the user switches to GPS data transmission, there can be no human voice communication. (A disconcerting situation for a user in a medical emergency.) Data generation and transmission can take several seconds or longer. Then, “[a]fter the data has been successfully transmitted, the user presses button 206 again reconnect switch 204 to the audio receiver 17.” *Id.* at lines 43-45.

Applicant’s present claim 1, to the contrary, calls for sending data via the voice channel, as noted above, without significantly interrupting human speech communications over the same voice channel call. The specification explains how this can be done, in one embodiment, at page 9, second paragraph.

The Janky patent is similar to Preston et al. in this regard. GPS operations are initiated by pressing keys, see column 7, lines 4-20. When the unit switches to data transmission mode, according to Janky, voice communication is cut off: See switches 172, 174 in Figure 9. The text explains:

“Referring again to FIG. 9 in the present embodiment, interconnections between lines 154, 156 of the add-on module 124 and the receiver 136 and the transmitter 134 are accomplished using switches 172, 174. That is, if data from GPS device 140 is to be transmitted to cellular telephone device 120, each of the switches 172, 174 contact point “D”. However, when the cellular telephone device 120 is operating in normal voice mode, the switches 172, 174 contact point “V”.” See column 7, lines 31-38.

3. Additional rejections based on Souissi.

Claims 2-4 are canceled. Claims 5-6 should be reconsidered in view of the amendments to claim 1. As to claims 7-10, claim 7 recites:

“The method of claim 1 including transmitting the data to a call center for processing, and receiving from the call center a communication including digital data based on the transmitted data.”

The Examiner asserted that, “Souissi discloses transmitting the data to a call center for processing, and receiving from the call center a communication ...”. Office Action at page 3. Respectfully, the Examiner apparently misreads the reference; no discussion of a call center was found at the paragraphs cited. For these reasons, Applicant contends that claims 7-10 are not anticipated by Souissi.

The rejection of claim 9 indicates that the Examiner would read a “call center” on the prior art GPS unit 280. Such is not a “call center” in the context of the present invention. Figure 2A shows that the GPS unit 280 is built into the RF modem attached to the host computer. In the context of the present invention, a “call center” is remote from the wireless phone mobile unit. See Applicant’s Figure 1 – call center 14 –and specification at page 6, last two paragraphs. The call center receives data/voice transmissions via the wireless network from a remote mobile unit. (The wireless carrier network itself would not be considered a call center; a better example would be a 911 emergency call center where emergency calls are received, and where determining the location of the caller can be critically important.) Rejection of claims 9-10 therefore should be reconsidered and withdrawn.

Regarding claims 11-13, the Examiner stated that Souissi “discloses transmitting occurs in response to a communication received from a location apart from the mobile unit (host computer)”. Claim 11 is amended to clarify that “a location apart” was never intended to read on an apparatus physically connected to the mobile unit (like the Janky host computer). Claim 11 now reads: “The method of claim 1 wherein the step of transmitting occurs in response to a communication received via the wireless telecommunications network from a location ~~apart~~ remote from the mobile unit.” It is noted that Janky shows a “Server Internet” 275 but that is wired to the host computer 210; it is not the destination of the subject data transmissions. Put another way, the host computer cannot be both the source of data transmission (via the RF modem) and the destination call center described by Applicant. Rejection of these claims therefore should be reconsidered and withdrawn.

4. Claims 21-26 are canceled.

C. Call center interactions – claims 27 and 29.

Claim 27 is amended to emphasize the “round trip” functionality between the wireless mobile unit and the call center. The mobile unit transmits location data, which may be, for example, latitude and longitude, or merely raw GPS data from which latitude and longitude can be determined at the call center. See the specification at page 10, last paragraph. Per claim 27:

“the call center is operable to receive location information from the remote unit and to process the location information to generate location information in a second format; and
the call center is further operable to transmit the second format information back to the remote unit.”

The returned information (“second format”) is presumably in a more useful form, for example a street address or map graphic. See claim 29. Janky shows transmission of location data, but not the return of processed data in a new format; a markedly advantageous feature of the present invention.

Further, in another embodiment, per claim 30, “the call center is operable to query the remote unit to initiate the remote unit determining its own location, and to transmit the location information back to the call center. This is distinguished from situations where the mobile unit user herself initiates transmission of location information (See Preston and Janky). These claims are believed to be patentable over the prior art and therefore should be allowed.

D. New claims.

New claims 31-51 are submitted for examination. These claims are believed to be patentable over the art of record for at least the following reasons. Claim 31 includes the limitation, for example, of initiating the collection and transmission of location data from a remote mobile unit in response to receiving “an external request” to do so. This is contrary to the prior art initiation of similar actions by the mobile unit user herself pressing a button. This claim also calls for transmitting the location data in the voice channel during a temporarily muted voice mode call. Dependent claim 32 calls for receiving acknowledgement from the destination that the location data was received; and, in response to the acknowledgement,

discontinuing said muting the voice channel call. This provides faster, better performance than manually muting a call as taught by Preston.

Claim 34 further adds the feature wherein the voice channel muting and transmitting steps are carried out during a brief mute interval "having a maximum duration selected so that it does not impair a conversation on the voice channel". This approach enables substantially continuous voice contact with the call center while transmitting the location data. The other claims depending from claim 31 recite alternative embodiments and other limitations, for example providing location data to an interested party at a location other than the call center, such as a concerned parent seeking the location of his overdue teenage daughter.

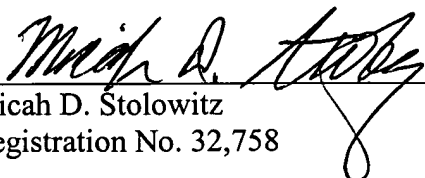
New claims 44-51 variously recite features similar to those discussed earlier, namely transmitting location data from a wireless mobile unit via the voice channel; using short "bursts" of data during mute intervals to maintain voice contact with the call center; processing the data at the call center into another format, selection of transmission modes, etc. Claim 46 calls for, at the call center, requesting updated location data from the mobile unit. Claims 47-48 speak to processing the location data into more useful form, and returning it, as discussed earlier. This can be done over the established voice call (claim 49).

Claim 51 calls for, at the call center, determining a signal quality of the voice channel call at the call center and *signaling the mobile unit to change transmission mode* if predetermined signal quality criteria are not met. This closed-loop process involving the call center in transmission mode selection is not suggested in the prior art.

The Examiner is welcome to call the undersigned to discuss any aspect of this application. My direct-dial number (normal hours *Pacific Time*) is: 503-294-9189.

Respectfully submitted,

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